Category #46:

Investigate the use of new green cleaning technology and equipment.

State Response:

The use of microfiber cloths and mops, multilevel walk-off mats, two chamber cleaning buckets, , carpet extractors, glide pads on chairs and desk legs, the proper grade floor polishing pads and floor stripping pads, and other advances in cleaning equipment should be investigated. No touch cleaning systems are systems that combine pressure washing, chemical application, and wet vacuuming into a single process. These systems may minimize the use of chemicals through metering while allowing employees to avoid contact with chemicals as well as the surfaces to be cleaned. School Districts may wish to evaluate the use of these systems in their facilities.

New types of materials and equipment based on new technologies are also important to help districts reduce the toxicity of products and equipment used in schools. Examples include the batteries in battery operated cleaning equipment such as floor buffers and scrubbers.

Technological improvements have resulted in absorbed glass mat and gel cell batteries which are sealed, and do not contain liquid acid, thereby eliminating hazards from acid spills, breakage and off gassing during charging cycles.
New products also offer opportunities to conserve energy, reduce waste and improve both the indoor and natural environments. For example, waterless urinals consume no water, have no moving parts, and are easily cleaned.

Districts should be aware of the possibilities of improving the environment and eliminating hazardous materials through the use of new technologies and products. Costs should be weighed against the benefits to cleaning and health. A number of these products may already be available from preferred sources at the following link http://www.ogs.state.ny.us/procurecounc/pdfdoc/psguide.pdf and/or the industrial supplies contract, and/or a specific contract.

Frequently Asked Public Comment:

Consider Adding a Section on Battery Operated Cleaning Equipment - AGM (Absorbed Glass Mat) or Gel Batteries.

--One suggestion I have for the cleaning and maintenance products guidelines is to consider adding a section on battery operated cleaning equipment. In most cases, flooded or lead acid cell batteries are used on automatic scrubbers, sweepers, carpet extractors, etc. As they are charged, these batteries will release hydrogen gas into the environment. In addition, as they are not sealed batteries, sulfuric acid can escape the battery and in extreme situations, can be spilled onto the floor. Most buildings do not allow for proper ventilation during the charging cycle. Therefore, the guidelines should include a comment on the use of AGM (absorbed glass mat) or gel batteries. These batteries are totally sealed so there is no off gassing during the charge cycle and the acid can not get out of the battery unless damaged. (MJ Healy, Industrial Cleaning Supply Co.)

Include the Use of No-Touch Cleaning Systems in the Guidelines and Specifications

--We are grateful for the opportunity to comment on the proposed guidelines and believe your efforts are commendable. We would however, like to bring what many in the industry believe to be a serious omission to your attention.

First, there appears to be a very heavy emphasis throughout the guidelines and specifications on

traditional cleaning procedures and methods—the use of cleaning cloths, mops, buckets, sprayers, chemical dispensing units, etc. Alternative cleaning systems, such as the use of no-touch or spray-and-vac systems, are not addressed or included.

We consider this a conspicuous omission, especially because schools and school districts were among the first to embrace no-touch cleaning. These systems are now commonplace in a variety of industries including schools as well as hospitals, factories, and restaurants. Indeed, some of the largest contract cleaning and restroom cleaning services in the United States now rely on no-touch cleaning systems.

In general, no-touch systems work by combining pressure washing, chemical injection, and wet vacuuming into a single unit. Hydrogen peroxide, pH neutral, and/or Green Seal® -certified cleaning chemicals are applied to all restroom surfaces to be cleaned. The areas are then rinsed clean, loosening and removing soils and contaminants. The final step, vacuuming up these soils, makes sure they are eliminated from the area cleaned.

No-touch equipment, manufactured by different cleaning manufacturers, is environmentally preferable for several reasons, including:

1. With some machines, metering tips are used to automatically dilute the cleaning chemicals. The user never "touches" the chemicals, eliminating the possibility of spills, burns, or the inhalation of fumes.
2. Studies indicate no-touch cleaning systems use as much as 90 percent less chemical than traditional cleaning methods, further minimizing the negative impact of cleaning chemicals on the environment.
3. Indoor air quality is improved when dust and contaminants are liquefied and then vacuumed up before becoming airborne.
4. Using no-touch systems to maintain floors extends floor refinishing cycles, minimizing the use of floor strippers, cleaners, and finishes, some of the most powerful and harmful chemicals used in the cleaning industry.
5. Because no surfaces are touched in the cleaning process, the possibility for cross-contamination is essentially eliminated, protecting cleaning workers and facility users.
6. Newer no-touch systems have reduced noise levels, protecting the health of the cleaning worker and building occupants.

In addition, many experts in the industry believe that no-touch cleaning provides more thorough cleaning compared with the more traditional methods. Indeed, studies are now underway to support this conclusion.

To protect the health of children and staff, I cannot think of anything healthier—or "Greener"—than the no-touch cleaning system. I urge your office to broaden
its scope and include the use of no-touch cleaning systems in your guidelines and specifications. (Bob Robinson Sr., President/CEO, Kaivac, Inc.)

Green Cleaning Equipment

--It seems that much time and effort has been put into developing "Green" standards for cleaning chemicals used in the cleaning process. However, there is little reference to the "Green" compatibility of the equipment used to apply the mixed solutions to the surface being cleaned.

We at Nilfisk-Advance, Inc., have been working silently in the background and have invested a great deal of our resources over the past 5 years to developing cleaning equipment that can be used in conjunction with today's Green Cleaning Programs.

Below are a few of our accomplishments:

Carpet Extraction Equipment; Dual Cleaning Mode (DCM) allows the machine to be used in a Maintenance mode or Restoration mode. The Maintenance mode dispenses only .3 gallons of solution per minute. This leads to faster drying time and limits the possibility of mold generation during routine cleaning. For deeper cleaning the restoration setting can be used and dispenses .7 gallons per minute.

Settings can be changed with a simple operator adjustment. CRI Green Label Approved.

Vacuums; Most of our full line of vacuum cleaners have received CRI Green Label Certification.

AXP Technology; This system allows machines to be filled with water only and all mixing and dilution of chemicals is accomplished "on-board". This is not only safer, but eliminates having to dump pre-mixed solution when changing from one cleaning chemical to another. This is available on some extractors and most of our larger hard floor autoscrubbers.

Burnishers; Units are available with both passive and active Dust Control Systems that have a positive impact on Indoor Air Quality.

The Adhancer; This is our latest breakthrough and will be a huge assist to Green Cleaning. Rather than scrubbing, sweeping (or dust mopping), and burnishing in 3 separate procedures, the Adhancer Sweeps, Washes and Polishes the surface in a one step, one-pass operation. The bonus is that the machine does not "de-grade" the floor finish the way that conventional scrubbing and burnishing does. This increases the life of the floor finish and extends the period of time between costly and environmentally taxing "strip out procedures". In addition to being "Green Friendly" it is also a great labor saver.
All in all, we have some very fine “Green Equipment".

We would like to see a separate State Contract Section for "Green Cleaning Equipment" that meets strict criteria for its positive impact on the environment. The equipment must also be user-friendly, ergonomically supportive, and safe.
(Jim Grahek, Region Manager, Advance Commercial Products, Nilfisk-Advance, Inc.)